

## CLAIMS

### I CLAIM:

1. A detector comprising:  
  
a radiation energy receiving probe for receiving radiation energy from the skin at a brain tunnel, said probe including a bulge for contacting the skin at the brain tunnel and said probe having a sensor for converting the radiation energy into an electrical signal.
2. The detector according to claim 1, wherein said probe includes a system for focusing infrared radiation.
3. The detector according to claim 2, wherein said system for focusing infrared radiation includes a lens.
4. The detector system according to claim 2, wherein said system includes a filter for filtering infrared radiation.
5. The detector according to claim 1, wherein said probe includes a processor.
6. The detector according to claim 5, wherein said processor calculates at least one of temperature and concentration of substances in blood.
7. The detector according to claim 1, wherein said probe includes a display device.
8. The detector according to claim 1, wherein said probe includes a transmitter.
9. The detector according to claim 8, wherein said transmitter transmits a signal by at least one of wireless or wired transmitters.
10. The detector according to claim 1, wherein said probe includes a connection to a remote module for at least one of processing, transmitting and displaying the signal.

11. The detector according to claim 1, wherein said probe includes an ambient temperature sensor.
12. The detector according to claim 1, wherein said sensor includes at least one of a non-contact sensor and a contact sensor.
13. The detector according to claim 12, wherein said sensor includes an infrared sensor.
14. The detector according to claim 13, wherein said infrared sensor includes a thermopile.
15. The detector according to claim 1 wherein said sensor includes at least one of a thermistor, thermopile, RTD, semiconductor, surface mounted sensor, platinum wire, conductive polymers, optic fiber, fluorescent sensor, thermoelectric sensor and heat flux sensor.
16. The detector according to claim 12, wherein said sensor includes a sensor array.
17. The detector according to claim 16 wherein said sensor array includes a microprocessor adapted to identify one sensor in the sensor array with a highest temperature output.
18. The detector according to claim 1, wherein said probe includes an extension touching the skin at the brain tunnel.
19. The detector according to claim 1, wherein said probe includes a positioning device to establish a fixed relationship between the probe and the brain tunnel.
20. The detector according to claim 1, wherein said probe includes a local reporting device.
21. The detector according to claim 20, wherein said local reporting device reports the signal by at least one of a visual, audio and tactile transmission.
22. The detector according to claim 1, wherein said probe is a hand held device.

23. The detector according to claim 8, wherein said transmitter controls an article of manufacture.
24. The detector as claimed in claim 23, wherein said article of manufacture includes at least one of a medical device, exercise equipment, a bicycle, clothing, footwear, a climate control system, an electric blanket, a collar, a vehicle seat, furniture, sports equipment and military gear.
25. The detector transmitter according to claim 8, wherein said transmitter transmits signals over a distributed computer network.
26. A detector for placement on the skin, said detector comprising:
  - a housing for placement on the skin,
  - a fastener for removably holding the housing on the skin,
  - the housing including hardware for receiving radiation energy from the skin at a brain tunnel, said housing including a bulge for contacting the skin at the brain tunnel.
27. The detector according to claim 26, wherein the fastener is durable.
28. The detector according to claim 26, wherein the fastener is disposable.
29. The detector according to claim 26, wherein the hardware includes electrical circuitry.
30. The detector according to claim 26 wherein the hardware includes at least one of a sensor, transmitter, processor, LED, buzzer, speaker, piezoelectric piece and power source.
31. The detector according to claim 30, wherein the sensor measures at least one of temperature, glucose, pulse, blood pressure, oxygen, metabolic function and a concentration of substance in blood.

32. A detector comprising:
- a radiation energy probe for remotely receiving radiation energy from the skin at a brain tunnel, said probe including a column for receiving radiation energy, said column having a largest widthwise dimension of less than 3.0 mm.
33. A detector comprising:
- a radiation energy probe for remotely receiving radiation energy from the skin at a brain tunnel, said probe including a lens for collimating radiation energy received from the brain tunnel.
34. A climate control apparatus comprising:
- a brain tunnel temperature detecting device for detecting a skin temperature of a brain tunnel of a mammal; and
- a control device for controlling climate on a basis of the skin temperature measured at the brain tunnel.
35. The climate control apparatus of claim 34, wherein the brain tunnel temperature detecting device includes at least one of a contact sensor and a non-contact sensor.
36. The climate control apparatus according to claim 35, wherein said sensor includes at least one of an infrared sensor and a thermal imaging system.
37. The climate control apparatus according to claim 35, wherein said sensor includes at least one of a thermistor, a thermopile, RTD, a semiconductor, a surface mounted sensor, a platinum wire, a conductive polymer, an optic fiber, a fluorescent sensor, a thermoelectric sensor and a heat flux sensor.
38. The climate control apparatus of claim 34, wherein the control device controls at least one of a cabin of a transportation vehicle, a confined area and a dwelling place.

39. The climate control apparatus of claim 34, wherein the control device includes a processing device for adjusting an article to provide thermal comfort to a mammal.
40. The climate control apparatus of claim 34, wherein the control device controls at least one of a heater, air conditioner, vehicle seat, carpet, steering wheel, window, floor, furniture, clothing, a shoe, a blanket, an infusion line and a medical device.
41. A radiation detector comprising:  
  
a thermal imaging system for receiving radiation energy from the skin at a brain tunnel, and  
  
a sensor for converting the radiation energy into an electrical signal.
42. The radiation detector according to claim 41, wherein said sensor includes a system for focusing infrared radiation.
43. The radiation detector according to claim 41, wherein said system includes a lens.
44. The radiation detector according to claim 41, wherein said system includes a filter for filtering infrared radiation.
45. The radiation detector according to claim 41, wherein said sensor includes a processor.
46. The detector as claimed in claim 26, wherein said fastener is a hook and loop fastener.